

SDMS US EPA REGION V -1

**SOME IMAGES WITHIN THIS
DOCUMENT MAY BE ILLEGIBLE
DUE TO BAD SOURCE
DOCUMENTS.**

COMPLIANCE PROCEDURE FOR WHOLE EFFLUENT ACUTE TOXICITY LIMIT

- The test solution shall not be renewed and reproduction of the test organisms shall not be measured. (Test procedures shall be revised to reflect any final, published updates of EPA/600/4-89/001 or EPA/600/4-85/013 within sixty (60) days of receipt by Sauget of such updated methods.) The whole effluent toxicity in Toxic Units-Acute (TUa) shall be calculated from the test result.

3. Ammonia nitrogen (as N) and pH must be quantified in the whole effluent sample, and the ammonia toxicity in TUa must be calculated according to the formula (or read from the table) found in Attachment D to this Consent Decree.
4. Sauget shall, concurrently with the performance of the whole effluent toxicity test, perform an identical, 48-hour EC₅₀ test, using Ceriodaphnia dubia, on a portion of the same effluent sample that has been subjected to the zeolite column procedure (zeolite test) found at Sections 3.4-3.5 of EPA 600/3-88/035. Sodium zeolite (e.g., AMMO-CHIPS) must be utilized. The ammonia nitrogen (as N) and pH also must be measured on the post-column effluent. The toxicity of the post-column effluent (in TUa) shall also be calculated.
5. Sauget shall determine the 99th percentile maximum daily discharge limitation for WET ("Current WET Limit"), assuming a log normal distribution, using the procedure set out in the following table.

ATTACHMENT E TO CONSENT DECREE
U.S. et al. v. Village of Sauget
(Continued)

TABLE FOR CALCULATION OF CURRENT WET LIMIT

1. Record the observed WET data:

Sample Date	Observed WET (TUa)

mo/da/yr	X_1
mo/da/yr	X_2
mo/da/yr	X_3
.	.
mo/da/yr	X_k

2. Determine the following:

$$E(X) = \text{long-term average} = \frac{X_1 + X_2 + \dots + X_k}{k}$$

$$V(X) = \text{variance} = \frac{\sum_{i=1}^k (X_i - \bar{X})^2}{k-1}$$

$$CV = \text{coefficient of variation} = \sqrt{\frac{V(X)}{E(X)^2}}$$

3. Estimate σ^2 :

$$\sigma^2 = \ln(CV^2 + 1)$$

ATTACHMENT E TO CONSENT DECREE
U.S. et al. v. Village of Sauget
(Continued)

4. Estimate μ :

$$\mu = \ln E(X) - .5\sigma^2$$

5. Calculate Maximum Daily Discharge Limitation as $e^{(\mu + Z\sigma)}$, with $Z = 2.326$ for 99th percentile:

$\text{Current WET Limit} = e^{(\mu + 2.326\sigma)}$

REFERENCE:

Table 6-1: Statistical Derivation of Permit Limits. Technical Support Document for Water Quality-based Toxics Control, p. 53. Office of Water, U.S. EPA. September 1985.

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ATTACHMENT F TO CONSENT DECREE
U.S. et al. v. Village of Sauget

CHEMICAL SPECIFIC MONITORING PROGRAM

1. Samples shall be collected as follows, monthly during the first year and quarterly thereafter, in coordination with the whole effluent toxicity (WET) and chronic toxicity testing, such that all chronic toxicity samples and as many as possible of the WET samples are analyzed for the full spectrum of chemicals in accordance with Paragraphs 2 and 3 below:

a. For the analysis of semi-volatile organics, 24-hour composite samples, comprising no fewer than twenty-four, equal-volume grabs, collected at regular intervals, of the following waste streams:

- P/C Plant Final Effluent
- ABRTF Primary Clarifier Effluent
- Final Effluent from the ABRTF

b. Grab sample of the ABRTF secondary sludge.

c. For the analysis of volatile organics, no fewer than three (3) grabs, collected at regular intervals over a 24-hour period and composited in the laboratory at the time of analysis, of each of the waste streams described in Subparagraph 1.a., above.

2. Each set of samples shall be analyzed for the following parameters using capillary column gas chromatography (GC) or capillary column GC with full scan or specific ion, electron impact ionization, mass spectrometry (GC/MS) and published U.S. EPA methods (or alternate methods approved in advance by U.S. EPA and IEPA):

ATTACHMENT F TO CONSENT DECREE
U.S. et al. v. Village of Sauget
(Continued)

<u>Chemical Name</u>	<u>CASR Number</u>
Aniline	62-53-3
Benzene	71-43-2
2-Chloroaniline	95-51-2
4-Chloroaniline	106-47-8
Chlorobenzene	108-90-7
2-Chloronitrobenzene	88-73-3
1,2-Dichlorobenzene	95-50-1
1,4-Dichlorobenzene	106-46-7
2-Nitroaniline	88-74-4
4-Nitroaniline	100-01-6
2-Nitrophenol	88-75-5
4-Nitrophenol	100-02-7
Xylenes	1330-20-7

In addition, the samples shall be analyzed for any bioconcentratable pollutants, as defined in Subsection IV.B. ("Modifications to Carbon Addition Requirements") of this Consent Decree.

3. Every second set of samples (six (6) during the first year and two (2) per year thereafter) shall be analyzed as follows, in addition to the analysis for the parameters listed in Paragraph 2 above:

a. The samples shall be analyzed by capillary column gas chromatography with full scan, electron impact ionization, mass spectrometry for the organic Priority Pollutants Numbers 001-088 and 106-112 (40 CFR 423, Appendix A) using U.S. EPA-approved methods, except that the sludge samples need not be analyzed for the volatile fraction.

b. In addition, an attempt shall be made to identify and quantify any non-Priority Pollutant peaks on the reconstructed gas chromatograms (ion plots), excluding unsubstituted aliphatic hydrocarbons and any peaks less than 10-times higher than the adjacent background noise. Identification shall be attempted by reference to the most current EPA/NIH computerized library of mass spectra, with visual confirmation by an experienced GC/MS analyst. Quantification may be an order-of-magnitude estimate, based upon the response of the nearest internal standard.

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U.S. Department of Justice

Environment and Natural Resources Division

Environmental Enforcement Section

Washington, D.C. 20530

90-5-1-1-3036

January 10, 1992

EXPRESS MAIL

Ms. Patsy Frew
Deputy Clerk of Court
United States District Court
for the Southern District of Illinois
750 Missouri Avenue
East St. Louis, Illinois 62201

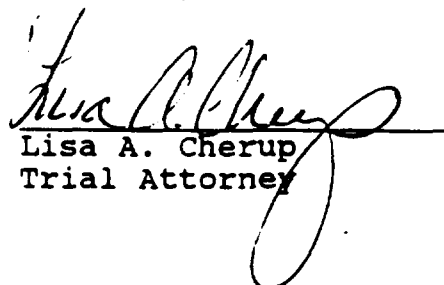
Re: United States and State of Illinois v.
the Village of Sauget, Illinois C.A. No. 88-5131

Dear Patsy:

At long last, enclosed is the signed original of the Consent Decree in the above-captioned matter. Please note that the Consent Decree should not be entered by Judge Beatty at this time. Given that the Consent Decree concerns environmental issues that are of interest to the public, the United States is required by regulation, 28 U.S.C. (50.7, to notice the Consent Decree in the Federal Register and to invite public comment for a thirty day period. Therefore, please lodge the Consent Decree with the Court now, and send me a date stamped front page of the Consent Decree in the self-addressed envelop which I have enclosed. The United States will be filing a motion for entry of the Consent Decree following the close of the public comment period (sometime within the next 60-80 days).

Thank you for all your assistance with this lawsuit.

Sincerely,


Lisa A. Cherup
Trial Attorney

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Environmental Enforcement Section
Environment & Natural Resources
Division
U.S. Department of Justice
(202) 514-2802

cc: Harold Baker
Jon Barney
Bruce Carlson
Susan Franzetti
Tom Martin
George Schillinger

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